GENERAL SPECIFICATIONS

DR-3000 DIGITAL MAGNETIC TAPE SYSTEM

TAPE TRANSPORT

TAPE SPEED: 37½, 75 ips standard; other speeds on special order.

TAPE WIDTH & THICKNESS: ½" width, 1.0 or 1.5 mil thickness mylar.
(all performance specifications are met in test procedures using 3M 598, 3M 599, Memorex 22D, or IBM 229269 tape)

TAPE REELS: IBM type 10½" reels and hubs standard.

TAPE LOADING: Straight path, no threading. Loads in 10 seconds or less.

RECORDING FORMATS: 7 or 9 track, NRZ-1 IBM compatible standard.

RECORDING DENSITY: 200, 556 or 800 Bpi standard. 1600 Bpi phase encoded available on special order.

START TIME: Less than 4 msec. bi-directional.

STOP TIME: Less than 3 msec. bi-directional.

TURNAROUND TIME: 6 msec maximum to 10% of final speed.

COMMAND REPETITION RATE: Cycling rate to 200 commands per second without program restrictions.

INSTANTANEOUS SPEED VARIATIONS (FLUTTER): ±0.5% at 75 ips.

STEADY STATE SPEED VARIATIONS: ±0.5% of absolute. Either forward or reverse at 37½ or 75 ips with constant line frequency of 60 cps.

REWIND TIME: 2400 feet in 144 sec.

INTERCHANNEL TIME DISPLACEMENT: Maximum total skew is within requirements for assured IBM 729 or 360 series machine to machine compatibility.

BIT DROPOUT: Less than 1 in 10^7.

CONTROLS, LOCAL: Stop, Forward, Reverse, Rewind, Power, manual/remote.

CONTROLS, REMOTE: Forward, Reverse, Rewind. Stop line not required except when numerical indicator is used. D.C. signal level 4 to 10 volts will affect command. "NO" command (or stop level) is OV ± 1V. Maximum rise time is 10 μsec. Command input impedance is 4K min.

INDICATOR LIGHTS: Ready (when all interlocks are closed), Load (transport in load position ready to accept tape). Transport automatically goes into load position when there is no tape in the machine.

HEADS: CEC all-metal-front-surface heads. 7 channel IBM 729 series or 9 channel 360 series compatible dual read/write heads are standard.

ELECTRONICS

CEC all-transistorized modular read/write electronics is available along with a self-contained and separate power unit. Test points are brought out on the leading edge of the cards for operational monitoring and servicing. Card holder size: 7"H x 19"W x 8¼"D.

READ CIRCUITRY: Peak detection read circuitry and skew correction is employed for maximum reliability. Electronics operate at 200, 556, or 800 Bpi. Standard outputs are in the form of ±10V minimum pulses capable of driving a 150 ohm load with the following characteristic: Rise time; 0.10 microsecond; a pulse represents a binary one. Other output pulses or levels may be obtained on special order.

WRITE CIRCUITRY: Write circuitry employs NRZ-I (flux change on successive binary "ones") methods for saturation recording. Input pulse levels; 0±1V ⎓ false, ±4 to 10V ⎓ true. Lateral parity generation circuitry is optionally available. Longitudinal parity generation is available at no cost but requires external reset pulse.

ACCESSORIES: Standard options include photo-electric end of tape sensing, file protect kit, numerical indicator, running time meter.

PHYSICAL DATA

TRANSPORT: Height, 19"; width, 24½"; depth, 16¾" (13" behind transport baseplate); weight, 135 lbs; 215 lbs with dust cover, trim and compressor.

CABINETS: Two cabinet styles; vertical and horizontal are available for mounting the DR-3000 and associated electronics.

	Horizontal (Max.)	Vertical (Max.)
Height	66¼	73¼
Width	28¾	24
Depth	25½	25½
Total Weight (System)	600 lbs., Max.	625 lbs., Max.

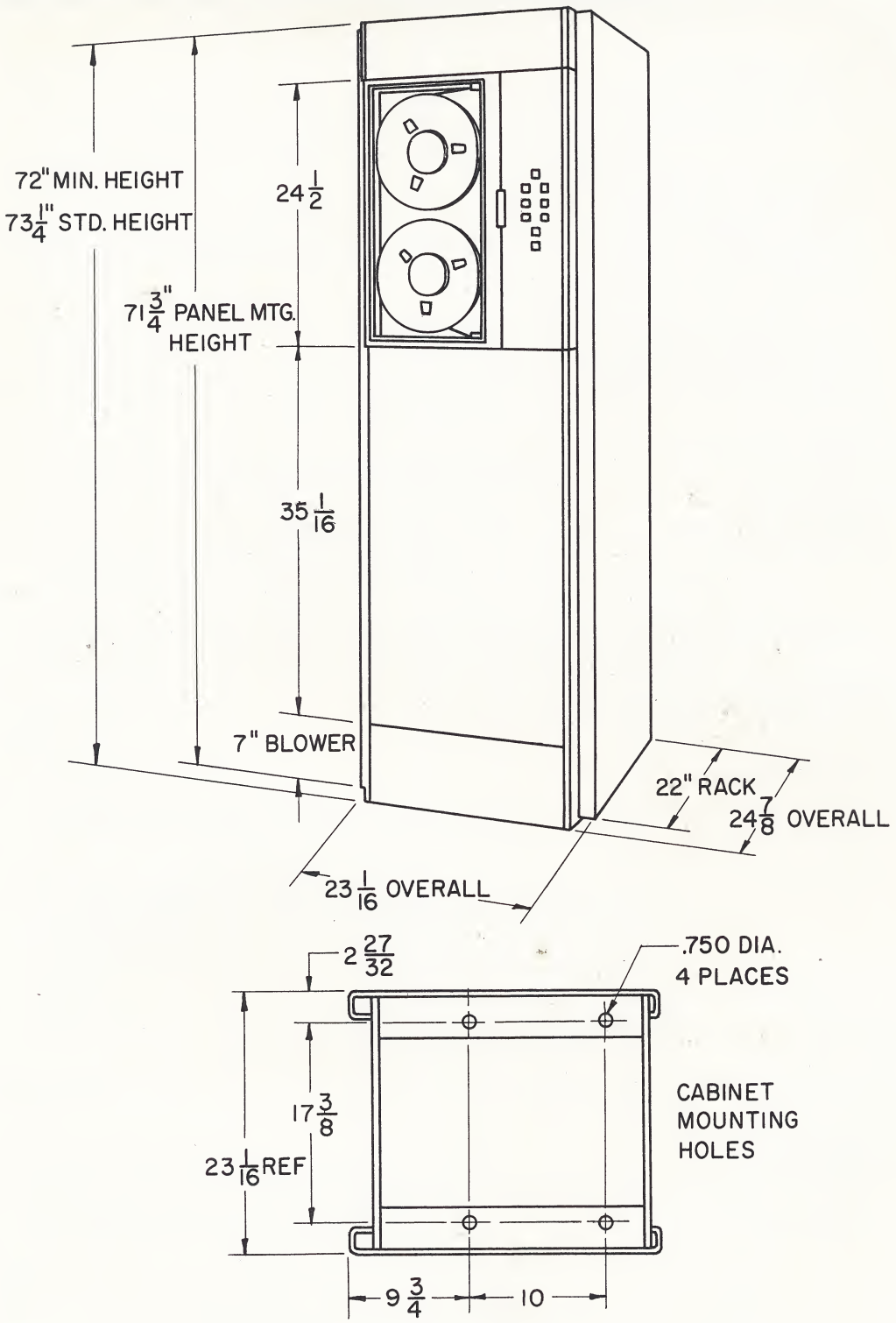
ACCESSIBILITY: Front access only is required for normal maintenance and operation. Transport is hinged and swings out for complete accessibility in both horizontal and vertical mounts.

TRANSPORT POWER: 1 KVA (without compressor).

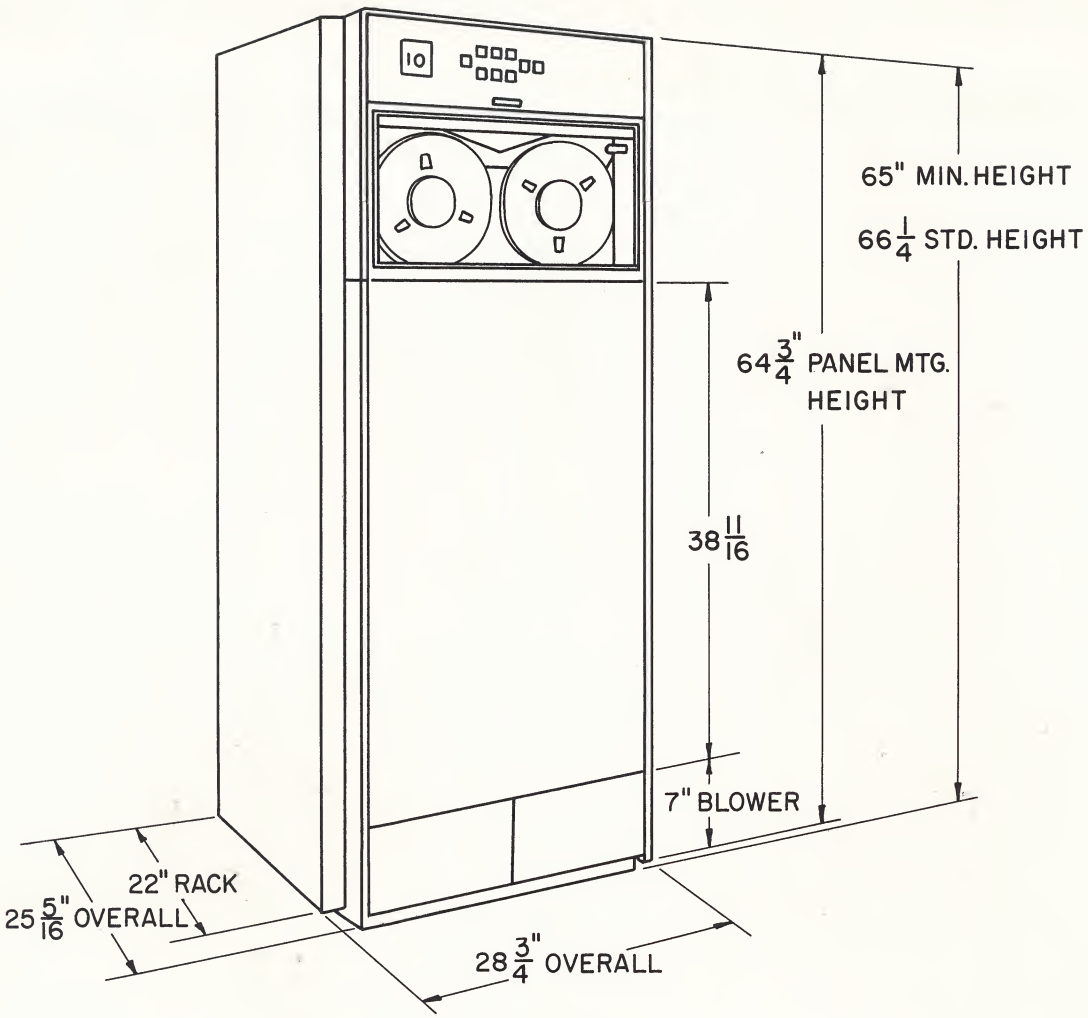
SYSTEM POWER: Input 105 — 125V RMS, 60 ± 1 cps, single phase, 18 amps at 125V line maximum.

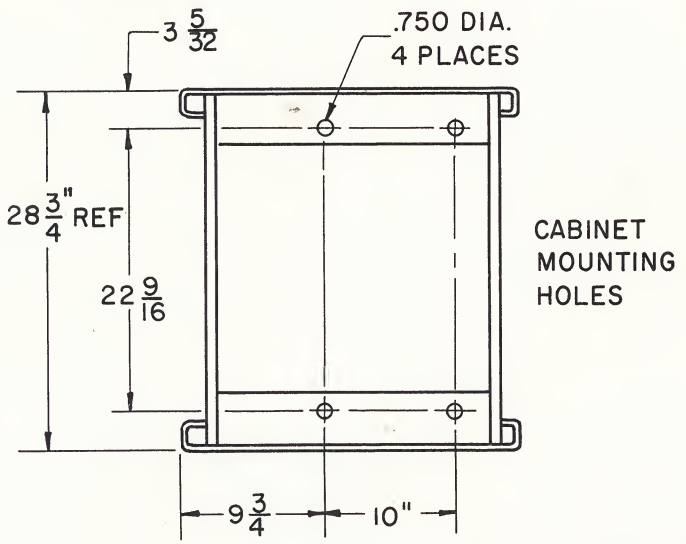
ENVIRONMENT: System is intended for laboratory, fixed-plant, shipboard or semi-mobile portable use and will perform in all conditions normally common to these environments.

NOTE: All specifications based on standard CEC test procedure.



SYSTEM OUTLINE, DR 3000
WITH VERTICALLY MOUNTED TRANSPORT





SYSTEM OUTLINE, DR 3000
WITH HORIZONTALLY MOUNTED TRANSPORT

DATA RECORDERS DIVISION

CEC

CONSOLIDATED ELECTRODYNAMICS

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